trends in GENETICS

Author Index

Subject Index

Books Reviewed

1996

Vol 12
Issues 1–12

ISSN 0168 9525

Trends in Genetics

Elsevier Trends Journals
68 Hills Road
Cambridge
UK CB2 1LA
Tel: +44 1223 315961
Fax: +44 1223 464430
+44 1223 321410
E-mail: TIG@elsevier.co.uk

Editorial Board

K.V. Anderson, *Berkeley, USA*
R.S.P. Beddington, *London, UK*
P. Borst, *Amsterdam, The Netherlands*
E. Coen, *Norwich, UK*
G. Fink, *Cambridge, USA*
K. Fischer Lindahl, *Dallas, USA*
W.J. Gehring, *Basel, Switzerland*
P.N. Goodfellow, *Cambridge, UK*
P. Gruss, *Göttingen, Germany*
L. Guarente, *Cambridge, USA*
I. Herskowitz, *San Francisco, USA*
H.R. Horvitz, *Cambridge, USA*
E. Meyerowitz, *Pasadena, USA*
A. Pawson, *Toronto, Canada*
C. Scazzocchio, *Orsay, France*
L. Shapiro, *Stanford, USA*
D.J. Sherratt, *Oxford, UK*
J. Smith, *London, UK*
M. Takeichi, *Kyoto, Japan*
D. Tautz, *Munich, Germany*

Editor	Mark Patterson
Assistant Editor	Rachel Wood
Editorial Administrator	Lucy Greenberry
Publisher	Peter Desmond

Copyright © 1997 Elsevier Science Ltd. All rights reserved.

This journal and the individual contributions contained in it are protected by the copyright of Elsevier Science Ltd. Except as outlined in the terms and conditions, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Publisher, Elsevier Trends Journals, 68 Hills Road, Cambridge, UK CB2 1LA.

Author Index

BR, Book Review
G, Genetwork
L, Letter
M, Monitor
MR, Meeting Report
P, Perspective
TT, Technical Tip

A

Abate-Shen, C., Gene transcription: the next generation (MR) 157
Abouheif, E., *see* Zardoya, R. (L) 496
Abud, H., *see* Bueno, D. (TT) 385
Akiyama, S., *see* Gemmell, N.J. (TT) 338
Alavantić, D., *see* Glisic, S. (TT) 391
Albertson, D.G., *see* Hope, I.A. (G) 370
Alfred, J., The *quaking* gene (M) 169
Alifano, P., *see* Manna, F. (TT) 337
Amor-Gueret, M., *see* Foucault, F. 450
Anagnostopoulos, A.V., It's a Knockout! (G) 323
Anagnostopoulos, A.V. and Jacobson, D., It's a Knockout! (G) 236
Anagnostopoulos, A.V., *see* Jacobson, D. (G) 117
Anagnostopoulos, A.V., It's a Knockout! (G) 485
Aparicio, S., *see* Elgar, G. 145
Archibald, A.L., Noah's ark on Fraser Island (MR) 115
Attisano, L., *see* Wrana, G.L. 493
Audibert, A., Debec, A. and Simonelig, M., Detection of mitotic spindles in third-instar imaginal discs of *Drosophila melanogaster* (TT) 452
Avery, L., Aging in worms (M) 343
Avery, L., KSR – a new player in RAS signalling (M) 89
Avery, L., How worms smell (M) 252

B

Baatout, S., Short Protocols in Molecular Biology (BR) 325
Baiget, M., *see* Petroni, D. 167
Bairoch, A., *see* Bork, P. 425
Barber, J.C.K., Human Cytogenetics Database 3.5 (BR) 279
Barrell, B., *see* Walsh, S. (G) 276
Barsh, G.S., The genetics of pigmentation: from fancy genes to complex traits 299
Becker, K-F., Reich, U., Handschuh, G., Dalke, C. and Höfler, H., Non-radioactive protein truncation test (nrPTT) for rapid detection of gene mutations (TT) 250
Beddington, R., Seaside signal success (MR) 237
Belmont, J.W., *see* Jurecic, R. (TT) 502
Belouchi, A., *see* Cellier, M. 201
Bernards, R., Cycling in Switzerland (MR) 158
Bhattacharya, S., Retinitis pigmentosa (M) 293
Blake, D.J., *see* Nawrotzki, R. 294
Bodmer, W.F., *see* Tomlinson, I.P.M. 40
Bootsma, D. and Hoeijmakers, J.H.J., DNA Repair and Mutagenesis (BR) 79
Bork, P. and Bairoch, A., Go hunting in sequence databases but watch out for the traps (G) 425
Bork, P., *see* Koonin, E.V. (L) 334
Borts, R.H., Yeast Protocols: Methods in Cell and Molecular Biology (BR) 326
Bossolasco, M., *see* Consalez, G.G. (TT) 455
Bouchard, C., *see* Chagnon, Y.C. 441
Boucher, R.C., Current status of CF gene therapy 81
Bringas, P., *see* Lazik, A. (TT) 445
Brook, J.D., *see* Hamshere, M.G. 332
Brookes, A.J., YAC Protocols. Methods in Molecular Biology (Vol. 54) (BR) 238
Brown, S.D.M. and Peters, J., Combining mutagenesis and genomics in the mouse – closing the phenotype gap 433
Brown, T.A., Discovering Molecular Genetics: A Case Study Course with Problems and Scenarios (BR) 535
Brunning, S. and Durrant, I., Single base mismatch analysis in non-radioactive *in situ* hybridization (TT) 392
Buckingham, M., *see* Cossu, G. 218
Bueno, D., Skinner, J., Abud, H. and Heath, J.K., Double *in situ* hybridization on mouse embryos for detection of overlapping regions of gene expression (TT) 385
Bullejos, M., *see* Sánchez, A. (TT) 44
Burgos, M., *see* Jiménez, R. 164
Burgos, M., *see* Sánchez, A. (TT) 44
Burmeister, M. and Lehrach, H., High-yield DNA preparation from liquid phage λ cultures (TT) 389
Burt, D.W., Introduction to Veterinary Genetics (BR) 327

C

Caballero, J-L., Medina, N., Cárdenas, J. and Muñoz-Blanco, J., An easy non-radioactive procedure to check the quality of the ligation steps during the construction of cDNA libraries (TT) 501
Callabero, O., *see* Dias Neto, E. (TT) 341
Calos, M.P., The potential of extrachromosomal replicating vectors for gene therapy 463
Carbonari, M., *see* Pesce, A.M. (TT) 447
Cárdenas, J., *see* Caballero, J-L. (TT) 501
Carlson, J.R., Olfaction in *Drosophila*: from odor to behavior 175
Casari, G., de Daruvar, A., Sander, C. and Schneider, R., The yeast genome is sequenced – so what next? Bioinformatics and the discovery of gene function 241
Cebrat, S. and Dudek, M.R., Generation of overlapping open reading frames (L) 12
Ceccherini, I., *see* Pasini, B. 138
Cellier, M., Belouchi, A. and Gros, P., Resistance to intracellular infections: comparative genome analysis of *Nramp* 201
Chabot, B., Directing alternative splicing: cast and scenarios 472
Chagnon, Y.C. and Bouchard, C., Genetics of obesity: advances from rodent studies 441
Chan, E.K.L., *see* Lung, C-C. (TT) 389
Chan, S-K., *see* Mann, R.S. 258

Chen, C.W., Complications and implications of linear bacterial chromosomes 192
Chen, M-Y., Insall, R.H. and Devreotes, P.N., Signaling through chemoattractant receptors in *Dictyostelium* 52
Chen, Z., Simple modifications to increase specificity of the 5′ RACE procedure (TT) 87
Chu, G. and Mayne, L., Xeroderma pigmentosum, Cockayne syndrome and trichothiodystrophy: do the genes explain the diseases? 187
Ciarmatori, S., *see* Consalez, G.G. (TT) 455
Cibati, M., *see* Pesce, A.M. (TT) 447
Clarke, A.R., *see* Thain, A. (TT) 209
Cohn, M.J. and Tickle, C., Limbs: a model for pattern formation within the vertebrate body plan 253
Conlon, F., *HoxD* and limb development (M) 292
Conlon, F., MAP kinase and mesoderm induction (M) 14
Consalez, G.G., Corradi, A., Ciarmatori, S., Bossolasco, M., Malgaretti, N. and Stayton, C.L., A new method to screen clones from differential display experiments prior to RNA studies (TT) 455
Conway Morris, S., The Shape of Life. Genes, Development, and the Evolution of Animal Form (BR) 430
Cordingley, H. and Snape, A., Wnt signalling (M) 398
Corradi, A., *see* Consalez, G.G. (TT) 455
Cossu, G., Tajbakhsh, S. and Buckingham, M., How is myogenesis initiated in the embryo? 218
Couture, L.A. and Stinchcomb, D.T., Anti-gene therapy: use of ribozymes to inhibit gene function 510
Cox, T.M., Haemochromatosis gene (M) 398
Cox, T.M., The Metabolic and Molecular Bases of Inherited Disease: Vols I, II and III (7th edn) (BR) 78
Craigen, W.J., Metabolic and Degenerative Diseases of the Central Nervous System (BR) 279
Cui, H. and Ohlsson, R., An improved protocol for purification of ^{35}S-labelled oligonucleotide DNA probes for *in situ* hybridization applications (TT) 506
Cunliffe, V., Expression-library immunization (M) 132
Cunliffe, V., Organ targeting *in vivo* (M) 251
Cunliffe, V., Retinal gene therapy (M) 398
Cunliffe, V., SCID gene therapy (M) 13
Curcio, M.J. and Morse, R.H., *Ty*ing together integration and chromatin 436
Czank, A., One-tube direct PCR from whole *Drosophila melanogaster* adults (TT) 457

D

Dalke, C., *see* Becker, K-F. (TT) 250
Danilevskaya, O.N., *see* Pardue, M.L. 48
Davies, K.E., *see* Nawrotzki, R. 294
de Moura, R.P., *see* Dias Neto, E. (TT) 341
de Daruvar, A., *see* Casari, G. 241
de la Torre-Ruiz, M.A., Transcriptional control in the yeast cell cycle (M) 90
De Repentigny, Y. and Kothary, R., An improved method for the artificial insemination of mice – oviduct transfer of spermatozoa (TT) 44
Dean, C., Signals to green (MR) 74
Debec, A., *see* Audibert, A. (TT) 452
Del Giudice, L., *see* Manna, F. (TT) 337
Dell'Anna, L., *see* Pesce, A.M. (TT) 447
della Torre, A., *see* Favia, G. (TT) 396
Desnuelle, C., *see* Paul, R. (TT) 131
Devreotes, P.N., *see* Chen, M-Y. 52
Dias Neto, E., Rahal, P., de Moura, R.P., Callabero, O. and Villa, L.L., DNA ligation quality control by competitive PCR (TT) 341
Díaz de la Guardia, R., *see* Jiménez, R. 164
Díaz de la Guardia, R., *see* Sánchez, A. 44
Doerfler, W., *see* Koetsier, P.A. (TT) 339
Dowell, S., Yeast signal transduction (M) 291
Dowell, S., *BEM1* – and arresting phenotype (M) 462
Dowell, S., Yeast pheromone signaling (M) 47
Dudek, M.R., *see* Cebrat, S. (L) 12
Dujon, B., The yeast genome project: what did we learn? 263
Durrant, I., *see* Brunning, S. (TT) 392
Duttweiler, H.M., A highly sensitive and non-lethal β-galactosidase plate assay for yeast (TT) 340

E

Eddy, S.R., Molecular genetics *in silico* (MR) 372
Eggleston, A.K. and West, S.C., Exchanging partners: recombination in *E. coli* 20
Eick, D. and Hermeking, H., Viruses as pacemakers in the evolution of defence mechanisms against cancer 4
Elgar, G., Sandford, R., Aparicio, S., Macrae, A., Venkatesh, B. and Brenner, S., Small is beautiful: comparative genomics with the pufferfish (*Fugu rubripes*) 145
Errington, J., Determination of cell fate in *Bacillus subtilis* 31
Essers, L. and Kunze, R., A sensitive, quick and semi-quantitative LacZ assay for the two-hybrid system (TT) 449

F

Facchiano, A., Coding in noncoding frames (L) 168
Favia, G., Mariotti, G., Mathiopoulos, K.D. and della Torre, A., Rapid nonradioactive differential display using Tth polymerase (TT) 396
Fickett, J.W., Finding genes by computer: the state of the art 316
Fiorilli, M., *see* Pesce, A.M. (TT) 447
Flint, A.P.F., *see* Kaluz, S. (TT) 453
Flint, J., Genetics of Criminal and Antisocial Behaviour. Ciba Foundation Symposium 194 (BR) 240

Forejt, J., Hybrid sterility in the mouse 412
Forlani, S. and Nicolas, J-F., Quantification of minute levels of β galactosidase in 2- to 16-cell stage mouse embryos (TT) 498
Foucault, F., Praz, F., Jaulin, C. and Amor-Gueret, M., Experimental limits of the PCR analysis of $(CA)_n$ repeat alterations (TT) 450
Frankham, R., Introduction to Quantitative Genetics (4th edn) (BR) 280
Fraser, P., *see* Milot, E. 123
Fryxell, K.J., The coevolution of gene family trees 364
Fullerton, M., Phylogeny and molecular biology: reconstructing the tree of life (MR) 533

G

Gaasterland, T. and Sensen, C.W., MAGPIE: automated genome interpretation (G) 76
Gann, A., *see* Tanaka, E. (MR) 278
Gardiner, K., Base composition and gene distribution: critical patterns in mammalian genome organization 519
Gaston, K., *see* Thain, A. (TT) 209
Gemmell, N.J. and Akiyama, S., An efficient method for the extraction of DNA from vertebrate tissues (TT) 338
Georgiev, O., *see* Gstaiger, M. 393
Glisic, S. and Alavantic, D., A simple PCR method detection of defined point mutations (TT) 391
Goffeau, A., *see* Dujon, B.
Gordon, A.J.E., p53 null mice, nothing to lose? (L) 444
Greaves, M., Is telomerase activity in cancer due to selection of stem cells and differentiation arrest? (D) 127
Gregoriou, M., *In Vitro* Mutagenesis Protocols (Methods in Molecular Biology, Vol. 57) (BR) 429
Grehl, H., *see* Liehr, T. (TT) 505
Griffiths, A., Review of Fungal Genetics: Principles and Practices (BR) 488
Gros, P., *see* Cellier, M. 201
Grossman, A.D., *see* Solomon, J.M. 150
Grosveld, F., *see* Milot, E. 123
Gruss, P., *see* Kioussi, C. 84
Gstaiger, M., Georgiev, O. and Schaffner, W., Fine mapping of protein interaction surfaces with a PCR-based mutagenesis screen in yeast (TT) 393
Guarante, L., Yeast prions (M) 14
Guarente, L., New function for E1A (M) 399
Guarente, L., Lou Gehrig disease and *SOD1* (M) 132
Guarente, L., *see* Kennedy, B.K. 355
Guarente, L., *see* Lombard, D.B. 283

H

Hall, L., Dosage effects and gene expression (M) 293
Hall, L., Flower formation (M) 13
Hall, L., Integration-defective *Arabidopsis* (M) 132
Halle, J-P. and Meisterernst, M., Gene expression: increasing evidence for a transcriptosome 161
Hamshere, M.G. and Brook, J.D., Myotonic dystrophy, knockout, warts and all 332
Handschuh, G., *see* Becker, K-F. (TT) 250
Hanna-Rose, W. and Hansen, U., Active repression mechanisms of eukaryotic transcription repressors 229
Hansen, U., *see* Hanna-Rose, W. 229
Harding, R., European geneticists merge disease with diversity (MR) 75
Harris, J.D. and Lemoine, N.R., Strategies for targeted gene therapy 400
Hatchwell, E., Improving PCR specificity by multiple pre-digestion (TT) 460
Healy, S., *see* Lowndes, N. (M) 251
Heath, J.K., *see* Bueno, D. (TT) 385
Heiskanen, M., Peltonen, L. and Palotie, A., Visual mapping by high resolution FISH 379
Hengartner, M.O., Celebrating life (and death) (MR) 487
Herbert, A., RNA editing, introns and evolution 6
Hermeking, H., *see* Eick, D. 4
Hidalgo, A., The roles of *engrailed* 1
Hoch, J.A., *see* Perego, M. 97
Hodgkin, J., A new fly adhesion molecule (M) 292
Hodgkin, J., New view on position-effect variegation (M) 210
Hodgkin, J., Fungal epigenetics (M) 509
Hodgkin, J., Novel ligands for the FGF receptor (M) 89
Hoeijmakers, J.H.J., *see* Bootsma, D. (BR) 79
Höfler, H., *see* Becker, K-F. (TT) 250
Holland, P.W.H., Unity or diversity? (MR) 324
Hooley, R., Plant steroid hormones emerge from the dark 281
Hope, I.A., Albertson, D.G., Martinelli, S.D., Lynch, A.S., Sonnhammer, E. and Durbin, R., The *C. elegans* expression pattern database: a beginning (G) 370
Hopkins, N., *see* Kawakami, K. 9
Hull, R., *see* Wolff, P.R.A. (TT) 339
Hulten, M., Jubilee human chromosomes (MR) 533
Hutchinson, G., International workshop tackles promoter recognition problem (MR) 159

I

Ingham, P.W., Has the quest for a Wnt receptor finally frizzled out? 382
Insall, R., The Art of MBoC3 Third Edition (BR) 430
Insall, R.H., *see* Chen, M-Y. 52
Islam, N. and Moss, T., Enzymatic method to removal of vitelline membrane and other protocol modifications for whole mount *in situ* hybridization (TT) 459

J

Jäckle, H., *see* Rivera-Pomar, R. 478
Jackson, I., Mouse *weaver* gene (M) 46
Jackson, I., *see* Wright, A.F. 206
Jackson, I.J., Mouse Kit signalling (M) 343
Jackson, I.J., *Toxic milk* (M) 509
Jacobson, D., *see* Anagnostopoulos, A.V. (G) 236

Jacobson, D. and Anagnostopoulos, A.V., Internet resources for transgenic or targeted mutation research (G) 117
Jansen-Dürr, P., How viral oncogenes make the cell cycle 270
Jarman, A.P., Epithelial polarity in the *Drosophila* compound eye: eyes left or right? 121
Jasin, M., Genetic manipulation of genomes with rare-cutting endonucleases 224
Jaulin, C., *see* Foucault, F. (TT) 450
Jenkins, O., *see* Thain, A. (TT) 209
Jiménez, R., Sánchez, A., Burgos, M. and Díaz de la Guardia, R., Puzzling out the genetics of mammalian sex determination 164
Jiménez, R., *see* Sánchez, A. (TT) 44
Johnston, M., The yeast genome is sequenced – so what next? Towards a complete understanding of how a simple eukaryotic cell works 241
Jowett, T. and Yan, Y-L., Double fluorescent *in situ* hybridization to zebrafish embryos (TT) 387
Joyner, A.L., *Engrailed*, *Wnt* and *Pax* genes regulate midbrain–hindbrain development 15
Jurecic, R., Nguyen, T. and Belmont, J.W., Differential mRNA display using anchored oligo-dT and long sequence-specific primers as arbitrary primers (TT) 502

K

Kallioniemi, O-P., Comparative genomic hybridization gaining in popularity (MR) 237
Kaluz, S., Kaluzova, M. and Flint, A.P.F., Rapid PCR-mediated bidirectional deletions (TT) 453
Kaluzova, M., *see* Kaluz, S. 453
Kamb, A. and Neuhausen, S., The cancers of man and woman 198
Kawakami, K. and Hopkins, N., Rapid identification of transgenic zebrafish (TT) 9
Kennedy, B.K. and Guarente, L., Genetic analysis of aging in *Saccharomyces cerevisiae* 355
Kimmel, C.B., Was *Urbilateria* segmented? 329
Kioussi, C. and Gruss, P., Making of a Schwann 84
Kodjabachian, L., *see* Lemaire, P. 525
Koetsier, P.A. and Doerfler, W., A simple device to prevent contamination during spin-column gel filtration (TT) 339
Koonin, E.V., *see* Mushegian, A.R. (L) 289
Koonin, E.V., Mushegian, A.R. and Bork, P., Non-orthologous gene displacement (L) 334
Kothary, R., *see* De Repentigny, Y. (TT) 44
Kumar, A., The adventures of the Ty1–*copia* group retrotransposons in plants 41
Kunkel, B.N., A useful weed put to work: genetic analysis of disease resistance in *Arabidopsis thaliana* 63
Kunze, R., *see* Essers, L. (TT) 449
Kuzio, J., Genomic sequence presentation (G) 321
Kuzminov, A., Mutant fixation via plasmid dimerization and its relation to human diseases 246

L

Lasa, A., *see* Petroni, D. (TT) 167
Latham, K.E., X chromosome imprinting and inactivation in the early mammalian embryo (P) 134
Lazik, A., Liu, Y., Bringas, P., Sangiorgi, F. and Maxson, R., A sensitive method for analysing β-galactosidase reporter gene expression in tissue sections of mouse embryos (TT) 445
Lee, K., A technique for the direct cloning of RT–PCR finger-printing products (TT) 504
Lehmann, R., *see* Rongo, C. 102
Lehrach, H., *see* Burmeister, M. (TT) 389
Leister, D., Marquardt, O. and Thompson, R., Production of full-length cDNA from a picornaviral genome by RT–PCR (TT) 11
Lemaire, P. and Kodjabachian, L., The vertebrate organizer: structure and molecules 525
Lemoine, N.R., *see* Harris, J.D. 400
Leroy, J.G., Genetic counseling as we enter the 21st century (MR) 428
Lewitter, F., Resources for human geneticists (G) 531
Liehr, T., Grehl, H. and Rautenstrauss, B., A rapid method for FISH analysis on interphase nuclei extracted from cryofixed tissues (TT) 505
Lim, L., *see* Wilton, S. (TT) 458
Lindquist, S.L., *see* Tuite, M.F. 467
Liu, Y., *see* Lazik, A. 445
Lombard, D.B. and Guarente, L., Cloning the gene for Werner syndrome: a disease with many symptoms 283
Lowenhaupt, K., *see* Pardue, M.L. 48
Lowndes, N. and Healy, S., STARTing the cell cycle (M) 251
Lowndes, N. and Morrison, D., YAC-breaking work (M) 462
Lung, C-C. and Chan, E.K.L., Simplifying 5′ RACE in the hunt for full-length cDNAs (TT) 389
Lynch, A.S., *see* Hope, I.A. (G) 370

M

Macrae, A., *see* Elgar, G. 145
Malgaretti, N., *see* Consalez, G.G. (TT) 455
Manchester, K.L., Exploring the gene with X-rays 515
Mann, R.S. and Chan, S-K., Extra-specificity from *extradenticle*: the partnership between HOX and PBX/EXD homeodomain proteins (erratum) 328
Mann, R.S. and Chan, S-K., Extra specificity from *extradenticle*: the partnership between HOX and PBX/EXD homeodomain proteins 258
Mann, R.S., Flies in Crete (MR) 427
Manna, F., Massardo, D.R., Del Giudice, L., Alifano, P. and Wolf, K., A simple and inexpensive method for RNA extraction from yeasts 337
Mariotti, G., *see* Favia, G. (TT) 396
Marquardt, O., *see* Leister, D. (TT) 11
Marshall, J., Genetically Modified Organisms: A Guide to Biosafety (BR) 199

Martienssen, R., Plant development and methylation (M) 508
Martienssen, R., Transcriptional activation and repression by VP1 (M) 90
Martinelli, S.D., *see* Hope, I.A. (G) 370
Massardo, D.R., *see* Manna, F. (TT) 337
Mathias, S., Transcription elongation factors and cancer (M) 210
Mathias, S., Length does matter (M) 508
Mathias, S., Paralogy mapping (M) 344
Mathias, S., X-inactivation and *Xist* (M) 396
Maxson, R., *see* Lazik, A. (TT) 445
Mayne, L., *see* Chu, G. 187
McCarthy, L.C., Whole genome radiation hybrid mapping 491
Medina, N., *see* Caballero, J-L. (TT) 501
Meisterernst, M., *see* Halle, J-P. 161
Meyer, A., Molecular Systematics (2nd edn) (BR) 534
Meyer, A., *see* Zardoya, R. (L) 496
Meyer, P., Biotechnology (3rd edn) (BR) 326
Milner, J., Molecular cascades in the Cascade Mountains (MR) 372
Milot, E., Fraser, P. and Grosveld, F., Position effects and genetic disease 123
Monaco, A., Human Molecular Genetics: Methods in Molecular Genetics (Vol. 8) (BR) 488
Morley, B.J., PCR Primer: A Laboratory Manual (BR) 239
Morley, B.J., PCR 2: A Practical Approach (BR) 239
Morrison, D., *see* Lowndes, N. 462
Morse, R.H., *see* Curcio, M.J. 436
Moss, T., *see* Islam, N. (TT) 459
Motulsky, A.G. Human Molecular Genetics (BR) 374
Müller, W.A., Pattern formation in the immortal *Hydra* 91
Muñoz-Blanco, J., *see* Caballero, J-L. 501
Mushegian, A.R., *see* Koonin, E.V. (L) 334
Mushegian, A.R. and Koonin, E.V., Gene order is not conserved in bacterial evolution (L) 289

N

Nasmyth, K., Yeast Review Series: At the heart of the budding yeast cell cycle 405
Nawrotzki, R., Blake, D.J. and Davies, K.E., The genetic basis of neuromuscular disorders 294
Nelson, M.A., Mating systems in ascomycetes: a romp in the sac 69
Neuhausen, S., *see* Kamb, A. (MR) 198
Nguyen, T., *see* Jurecic, R. (TT) 502
Nicolas, J-F., *see* Forlani, S. (TT) 498
Novina, C.D. and Roy, A.L., Core promoters and transcriptional control 351
Nurse, P., *see* Stern, B. 345

O

Ohlsson, R., *see* Cui, H. (TT) 506
Ohyashiki, J.H., Ohyashiki, K., Toyama, K. and Shay, J.W., A nonradioactive, fluorescence-based telomeric repeat amplification protocol to detect and quantitate telomerase activity (TT) 395
Ohyashiki, K., *see* Ohyashiki, J.H. (TT) 395
Oliver, S., The yeast genome is sequenced – so what next? A network approach to the systematic analysis of yeast gene function 241
Olsen, G.J. and Woese, C.R., Lessons from an archaeal genome: what are we learning from *Methanococcus jannaschii*? 377
Osborne, B.A., Cell death in vertebrates: lessons from the worm 489

P

Paige, A., Not such a mouse model (M) 170
Paige, A., Myelin-associated proteins and neuropathy (M) 47
Paige, A., Paralogy mapping (M) 344
Palotie, A., *see* Heiskanen, M. 379
Paquis-Fluckinger, V., *see* Paul, R. (TT) 131
Pardue, M.L., Danilevskaya, O.N., Lowenhaupt, K., Slot, F. and Traverse, K.L., *Drosophila* telomeres: new views on chromosome evolution 48
Parker, L., The Troubled Helix: Social and Psychological Implications of the New Human Genetics (BR) 536
Parker, M.G., Nuclear receptor superfamily reunion 277
Pasini, B., Cecherini, I. and Romeo, G., *RET* mutations in human disease 138
Pastore, C., *see* Petroni, D. (TT) 167
Paul, R., Santucci, S., Saunières, A., Desnuelle, C. and Paquis-Fluckinger, V., Rapid mapping of mitochondrial DNA deletions by large-fragment PCR (TT) 131
Peltonen, L., *see* Heiskanen, M. 379
Perego, M. and Hoch, J.A., Protein aspartate phosphatases control the output of two-component signal transduction systems 97
Pesce, A.M., Cibati, M., Dell'Anna, L., Fiorilli, M. and Carbonari, M., Optimization of quantitative co-amplification for β-globin and HIV-1 sequences in crude samples (TT) 447
Peters, J., *see* Brown, S.D.M. 433
Petit, C., Hereditary Hearing Loss and Its Syndromes (BR) 160
Petroni, D., Pastore, C., Lasa, A., Soler, J., Baiget, M. and Nomdedéu, J., Rapid sequencing protocol using microconcentrators 167
Pietrokovski, S., A new intein in cyanobacteria and its significance for the spread of inteins (L) 287
Praz, F., *see* Foucault, F. (TT) 450
Pritchard, C., Basic DNA and RNA protocols: Methods in Molecular Biology (Vol. 58) (BR) 375
Probst, J.C. and Skutella, T., The G-tetrad in antisense targeting (L) 290
Pruss, D., *see* Wolffe, A.P. 58

R

Radford, A., Gene Cloning – an Introduction (3rd edn) and Gene Cloning and Manipulation (BR) 199

Raghuraman, M.K., Methods in Enzymology on CD-ROM, CD-1: Recombinant DNA and Related Methodology (BR) 80
Rahal, P., *see* Dias Neto, E. (TT) 341
Rausher, M.D., Genetic analysis of coevolution between plants and their natural enemies 212
Rautenstrauss, B., *see* Liehr, T. (TT) 505
Redfield, R.J., Population Genetics of Bacteria (BR) 39
Reich, U., *see* Becker, K-F. (TT) 250
Restifo, L.L., Metamorphosis: Postembryonic Reprogramming of Gene Expression in Amphibian and Insect Cells (BR) 373
Rivera-Pomar, R. and Jäckle, H., From gradients to stripes in *Drosophila* embryogenesis: filling in the gaps 478
Robison, K., Internet searching (G) 196
Romeo, G., *see* Pasini, B. 138
Rongo, C. and Lehmann, R., Regulated synthesis, transport and assembly of the *Drosophilia* germ plasm 102
Rose, S., Cyril Burt: Fraud or Framed? (BR) 118
Ross, J., Control of messenger RNA stability in higher eukaryotes 171
Rowley, A., Cell-cycle checkpoints pathways (M) 211
Roy, A.L., *see* Novina, C.D. 351
Rudd, K.E., *Escherichia coli* K-12 on the Internet (G) 156

S

Sánchez, A., Bullejos, M., Burgos, M., Jiménez, R. and Díaz de la Guardia, R., An alternative to blunt-end ligation for cloning DNA fragments with incompatible ends (TT) 44
Sánchez, A., *see* Jiménez, R. 164
Sander, C., *see* Casari, G. 241
Sandford, R., *see* Elgar, G. 145
Sangiorgi, F., *see* Lazik, A. (TT) 445
Santucci, S., *see* Paul, R. (TT) 131
Saunières, A., *see* Paul, R. (TT) 131
Schaffner, W., *see* Gstaiger, M. (TT) 393
Schlotterer, C. and Wolff, C., M13mtvh: an improved M13 vector for rapid and simple cloning of PCR products (TT) 286
Schneider, R., *see* Casari, G. (TT) 241
Schwarz, H., An inexpensive, home-made DNA size standard (TT) 397
Searls, D.B., Sequence alignment through pictures (G) 35
Sensen, C.W., *see* Gaasterland, T. (TT) 76
Shay, J.W. and Wright, W.E., The reactivation of telomerase activity in cancer progression (D) 129
Shay, J.W., *see* Ohyashiki, J.H. (TT) 395
Shay, J.W., Telomerase and Cancer (MR) 486
Sherratt, D., Ku K.O. (M) 461
Sherratt, D., Yeast mating-type switching (M) 252
Sherratt, D., Peptide activation of P53 (M) 4
Shields, R., Gene distribution in maize (M) 90
Shields, R., Plant disease resistance (M) 251
Shields, R., Plant chromosomes unite (MR) 37
Shields, R., Maize evolution (M) 462
Simonelig, M., *see* Audibert, A. (TT) 452
Skinner, J., *see* Bueno, D. (TT) 385
Skutella, T., *see* Probst, J.C. (L) 290
Slot, F., *see* Pardue, M.L. (P) 48
Smith, D., *BRCA1* function (M) 211
Smith, H.C. and Sowden, M.P., Base-modification mRNA editing through deamination – the good, the bad and the unregulated 418
Smith, J.C., Transgenic frogs and FGF signalling in early development 439
Snape, A., Floating head and no tail (M) 132
Snape, A., *see* Cordingley, H. (M) 398
Soler, J., *see* Petroni, D. (TT) 167
Solomon, J.M. and Grossman, A.D., Who's competent and when: regulation of natural genetic competence in bacteria 150
Sonnhammer, E., *see* Hope, I.A. 370
Southern, E.M., DNA chips: analysing sequence by hybridization to oligonucleotides on a large scale (TT) 110
Sowden, M.P., *see* Smith, H.C. 418
Spencer, D.M., Creating conditional mutations in mammals 181
Stargell, L.A. and Struhl, K., Mechanisms of transcriptional activation *in vivo*: two steps forward 311
Stein, L., Web applets: Java, Javascript and ActiveX (G) 484
Stern, B. and Nurse, P., A quantitative model for the cdc2 control of S phase and mitosis in fission yeast 345
Stinchcomb, D.T., *see* Couture, L.A. (TT) 510
Stoker, A. and Storey, K., An excellent bag of nerves (MR) 38
Stoker, A., Wnt reception (M) 508
Stoker, A., Embryonic cavitation and apoptosis (M) 47
Stoker, A., FGF8 limb development (M) 344
Stoker, A., Psoriatic mice (M) 170
Storey, K., *see* Stoker, A. (MR) 38
Struhl, K., *see* Stargell, L.A. 311
Superti-Furga, G., Growth controllers knocked out (MR) 324

T

Tajbakhsh, S., *see* Cossu, G. 218
Tanaka, E. and Gann, A., Towards a molecular understanding of regeneration (MR) 278
Tautz, D., Conservation of *transformer-2* (M) 461
Tautz, D., Molecular and organismal evolution (M) 169
Tautz, D., Fidelity of translation and 5S rRNA (M) 13
Thain, A., Gaston, K., Jenkins, O. and Clarke, A.R., A method for the separation of GST fusion proteins from co-purifying GroEL (TT) 209

Thompson, M.W., The History of a Genetic Disease: Duchenne Muscular Dystrophy or Meryon's Disease (BR) 119
Thummel, C.S., Flies on steroids – *Drosophila* metamorphosis and the mechanisms of steroid hormone action 306
Tickle, C., *see* Cohn, M.J. 253
Tomlinson, I.P.M. and Bodmer, W.F., The HLA system and the analysis of multifactorial genetic disease (erratum) 40
Toyama, K., *see* Ohyashiki, J.H. (TT) 395
Traverse, K.L., *see* Pardue, M.L. (P) 48
Tuite, M.F. and Lindquist, S.L., Maintenance and inheritance of yeast prions 467

V

Venkatesh, B., *see* Elgar, G. 145
Villa, L.L., *see* Dias Neto, E. 341
Voltz, A.K., GDB, what's in it for me? (G) 235

W

Walsh, S. and Barrell, B., The *Saccharomyces cerevisiae* genome on the World Wide Web (G) 276
Weaver, T., Neurogenesis comfortably *numb* (M) 399
Weaver, T., POLYCOMB-mediated repression (M) 132
Weaver, T., PROSPERO and *Drosophila* neurogenesis (M) 46
Weaver, T., Hybrid sterility (M) 252
West, S.C., *see* Eggleston, A.K. 20
Weston, K., The Oncogene Handbook, The Oncogene Facts Book (BR) 39
Whitfield, S., Sympatric speciation (M) 509
Whitfield, S., Efficient targeting of human chromosomes in chicken cells (M) 170
Whitfield, S., Mutation rates (M) 343
Wilson, S., Regulation of neurogenesis (M) 292
Wilson, S., Hedgehog and neurogenesis (M) 461
Wilton, S. and Lim, L., Long-range PCR: synthesis of products independent of size (TT) 458
Woese, C.R., *see* Olsen, G.J. 377
Wolf, K., *see* Manna, F. (TT) 337
Wolff, C., *see* Schlotterer, C. (TT) 286
Wolff, P.R.A. and Hull, R., A rapid and easy method of DNA recovery from agarose gels using Wizard minicolumns (TT) 339
Wolffe, A.P. and Pruss, D., Deviant nucleosomes: the functional specialization of chromatin 58
Wolpert, L., One hundred years of positional information (P) 359
Wood, W.G., The complexities of β globin gene regulation 204
Wrana, J.L. and Attisano, L., MAD-related proteins in TGF-β signalling 493
Wright, A.F. and Jackson, I., Myosin diversity and disease 206
Wright, W.E., *see* Shay, J.W. (D) 129

Y

Yan, Y-L., *see* Jowett, T. (TT) 387
Yao, M-C., Programmed DNA deletion in *Tetrahymena*: mechanisms and implications 26
Yates, J.R.W., Cyrillic 2 (SR) 200

Z

Zardoya, R., Abouheif, E. and Meyer, A., Evolution and orthology of *hedgehog* genes (L) 496
Zhong, Y., Behaviour-specific genes? (MR) 116

Subject Index

Note that UK spelling is used throughout the Index
BR, Book Review
D, Debate
DR, Database Review
G, Genetwork
M, Monitor
MR, Meeting Report
P, Perspective
SR, Software Review
TF, Technical Focus
TT, Technical Tip

A

abscissic acid, seed maturation 90(M)
active repression, transcription 229
ActiveX 485(G)
activin 493
acute myeloid leukaemia 210(M)
adeno-associated virus vectors 82
adenoviral vectors, gene therapy role 402
adenovirus major late promoter 352
adhesion molecule, *Drosophila* 292(M)
adrenocorticotrophic hormone 299
agarose gel, DNA recovery 339(TT)
age-1 gene, *C. elegans* 343(M)
aging
  C. elegans 343(M)
  premature 283
  S. cerevisiae 355
Agouti gene, rodents 441
AKR1 gene, *S. cerevisiae* 290(M)
albinism 299
alternative RNA splicing 472
aminoacyl-tRNA synthetase 336(L)
amphibia *see also Xenopus*
  metamorphosis 373(BR)
amyotrophic lateral sclerosis 133(M), 433
androgenones, X chromosome imprinting 134
anaphase promoting complex 407
Anopheles gambiae, RNA fingerprinting 396(TT)
Antennapedia gene, *Drosophila* 258, 368
antisense targeting 290(L)
apolipoprotein B editing 418
apoptosis 487(MR)
  defense against cancer 4
  oncogenesis 324(MR)
  vertebrate 489
  vertebrate embryo cavitation role 47(M)
Arabidopsis thaliana
  disease resistance 63, 251(M)
  DNA methylation 508(M)
  flowering 13(M)
  steroid hormones 281
  T-DNA deficiency 132(M)
araucan gene, *Drosophila* 292(M)
Archaea, genome sequencing 377
artificial insemination, mouse 44(TT)
Ascobolus immersus, DNA methylation 509(M)
ascomycetes, mating systems 69
Ash1p, *S. cerevisiae* 252(M)
aspartate phosphatase 97
asymmetric cell division, *B. subtilis* 31
asymmetric segregation, *Drosophila* 46(M)
ATM gene, human 211(M)
axis formation *see also* patterning *and* embryogenesis

B

B-type cyclins 345, 406
Bacillus subtilis
  natural genetic competence 151
  sporulation 31, 98
bacteria *see also B. subtilis and E. coli*
  gene organization 289(L)
  linear chromosomes 192
  natural genetic competence 150
  population genetics 39(BR)
basal transcription factors 188, 230, 311, 351, 481
base composition, human 519
base modification, mRNA editing 418
basic helix-loop-helix proteins 218, 330
Bcg gene, mouse 201
BCL2 gene, human 489
Becker muscular dystrophy 294
behavioural disorders, gene role 116(MR), 240(BR)
Bem1p, *S. cerevisiae* 462(M)
beta-catenin, axis inducing role 398(M)
bicoid gene, *Drosophila* 478
BioCatalog 371(G)
bioinformatics 244, 372(MR) *see also* databases, WWW *and* Internet resources
biotechnology 326(BR)
BLASTX 316
bone morphogenetic proteins 493, 528
brassinosteroids 281
BRCA1 gene 211(M)
breast cancer 198(MR), 211(M)
Burt, Cyril 118(BR)

C

Caenorhabditis elegans
  cell death 489
  clock genes 343(M)
  daf genes 343(M)
  database 370(G)
  olfaction 252(M)
  RAS signal transduction 89(M)
  Wnt gene 384
cAMP receptor, *D. discoideum* 53
cancer 158(MR), 187
  breast 198(MR), 211(M)
  gene therapy 403
  ovarian 211(M)
  papillary thyroid carcinoma 138
  prostate 198(MR)
  telomerase role 127, 129, 486(MR)
caudal gene, *Drosophila* 478
caupolican gene, *Drosophila* 292(M)
cavitation, vertebrate embryos 47(M)
CD-ROM, molecular biology 80(BR), 430(BR)
cdc2, *S. pombe* 345, 406
cdc13, *S. pombe* 345, 407
cdc28p kinase, *S. cerevisiae* 251(M), 406
cDNA
  library construction 501(TT)
  mapping, human 344(M)
  RACE-PCR 87(TT), 389(TT)
ced genes, *C. elegans* 489
cell cycle 158(MR), 487(MR)
  cdc2 role 345
  gene knockouts 325(MR)
  viral oncogenes 270
  yeast 90(M), 211(M), 251(M), 345, 405, 462(M)
cell fate, *Drosophila* development 105
cell polarity, *Drosophila* 121, 331, 398(M), 427(MR)
cellular senescence 129
central nervous system, diseases 279(BR)
centromeres, in gene therapy vectors 464
cGMP phosphodiesterase 398(M)
chaperones, yeast 469
Charcot–Marie–Tooth disease 296
chemically-induced dimerization 181

chemotaxis, *D. discoideum* cell migration 52
chicken–human microcell hybrids 170(M)
chromatin 436
accessibility, *Drosophila* 133(M)
functional specialization 58
gene expression role 123
transcriptional regulation 311
chromosomal sterility 412
chromosome
evolution 48
linear, bacteria 192
polytene puffing 306
structure 58
clock genes, *C. elegans* 343(M)
cloning
DNA fragments using T-vectors 44(TT)
gene 199(BR)
PCR products using M13 vectors 286(TT)
RT-PCR fingerprinting products 504(TT)
Werner syndrome gene 283
coamplification, quantitative 447(TT)
Cockayne syndrome 187
coding region detection 317
coevolution 212
gene families 364
comparative genomics 115(MR), 201
F. rubripes 145
hybridization 237(MR)
comparative mapping 344(M)
competitive PCR, DNA ligation quality 341(TT)
conditional mutations, mammals 181
congenital muscular dystrophy 295
conjugation, linear bacterial chromosomes 195
conserved synteny 147
contamination prevention, spin-column gel filtration 339(TT)
cooperative DNA binding 258
core promoter 351
crime, genetic analysis 240(BR)
cyanobacteria, inteins 287(L)
cyclic AMP *see* cAMP
cyclin-dependent kinases 158(MR), 345, 406
cyclosome 407
Cyrillic software 200(SR)
cystic fibrosis, gene therapy 81
cystic fibrosis transmembrane conductance regulator 81, 403

D

daf genes, *C. elegans* 343(M)
databases 371(G), 425(G)
C. elegans 370(G)
E. coli 156(G)
Fungal Genome Resource 322(G)
gene identification 316
genome sequence presentation 321(G)
Human Cytogenetic Database 279(BR)
human genetics 531(G)
Human Genome (GDB) 235(G)
mouse, TBASE 117(G), 236(G), 323(G), 485(G)
mutations 328
S. cerevisiae 276(G)
WebEntrez 322(G)
yeast gene function 244
deafness 160(BR), 208
deaminases, mRNA editing 419
decapentaplegic gene, *Drosophila* 1, 121, 361, 427(MR), 494
deletion frequencies, muscular dystrophy 295
deletion mapping, long-range PCR 131(TT)
deletions
PCR-mediated 453(TT)
programmed 26
delta gene, *Drosophila* 399(M), 427(MR)
Dictyostelium discoideum, chemoattractant-directed cell migration 52
differential display 455(TT), 502(TT)
dimerization
chemically induced 181
plasmid 246
disease resistance
A. thaliana 63, 251(M)
European populations 75(MR)
mouse 201
plants 212
dishevelled gene, *Drosophila* 382
diversity 324(MR)
DNA
chips 110
cloning, using T-vectors 44(TT)
cooperative binding 258
double-strand breaks 224
extraction 338(TT)
length, transcription regulation 508(M)
ligation quality control 341(TT)
methylation 190, 508(M), 509(M)
preparation from liquid phage cultures 389(TT)
protocols 375(BR)
rearrangements, Tetrahymena 26
recovery from agarose gels 339(TT)
repair 79(BR), 187, 224
replication, Archaea 378
sequence alignment 26(G)
size standard 397(TT)
uptake, bacteria 150
vectors, gene therapy 463
DNA helicases, human diseases 284
dosage compensation
maize 293(M)
mammals 134
dosage sensitive sex reversal (*DSS*) gene 164
double *in situ* hybridization
mouse embryos 385(TT)
zebrafish embryos 387(TT)
double-strand breaks 224, 462(M)
Drosophila
adhesion molecule 292(M)
Antennapedia gene 258, 368
araucan gene 292(M)
bicoid gene 478
decapentaplegic gene 1, 121, 361, 427(MR), 494
delta gene 399(M), 427(MR)
embryonic polarity 366, 478
engrailed gene 1, 331
extradenticle gene 258, 328
eye development 121
gene silencing 210(M)
germ plasm 102
hedgehog gene 1, 121, 361, 427(MR), 461(M)
heterochromatin 48, 210(M)
human cDNA homologs 344(M)
hybrid sterility 252(M), 412
metamorphosis 306
mitotic spindle detection 452(TT)
myogenesis 221
neurogenesis 46(M), 292(M), 399(M), 461(M)
Notch gene 399(M), 427(MR)
numb gene 399(M)
olfactory system 175
Polycomb gene 133(M)
polymerase chain reaction 457(TT)
position effect variegation 123, 210(M)
positional information 361
RNA splicing 472
segmentation 329
sex determination 461(M), 473
telomeres 48

transformer-2 gene 461(M)
Ultrabithorax gene 133(M), 258
warts gene 332
wingless gene 331, 382, 398(M), 427(MR)
Wnt gene 382, 398(M), 508(M)
Duchenne muscular dystrophy 119(BR), 294
dystrophin 294

E
ear, neurodegeneration 208
ecdysone 306
editing, mRNA 6, 418
editosomes 418
ELL gene, human 210(M)
embryogenesis 237(MR)
dosage compensation and imprinting 134
Drosophila 103, 398(M), 478
myogenesis 218
positional information 359
quaking gene, mouse 169(M)
vertebrate cavitation 47(M)
vertebrate organizer 525
Xenopus 89(M), 398(M), 439
embryonic stem cells 47(M)
endonucleases, rare-cutting 224
engrailed gene
Drosophila 1, 331
mouse 15
env gene 400
environmental safety 199(BR)
epimorphosis 363
Epstein–Barr virus 270
gene therapy vectors 465
Escherichia coli
database 159(G)
deleterious mutation rate 343(M)
recombination 20
eumelanin 300
evolution
apoptosis 4
Archaea 377
bacteria 289(L)
cell cycle 349
chromosomal 48
development 324(MR), 430(BR)
gene families 169(M), 364
hedgehog gene 496(L)
immune system 366
maize 462(M)
mitochondrial DNA 248(L)
molecular 533(MR)
non-orthologous genes 334(L)
paralogy mapping 344(M)
plants and enemies 212
Ty1-*copia* retrotransposon group 41
expressed sequence tag database searching 344(M)
extrachromosomal replicating vectors, gene therapy 463
extradenticle gene, *Drosophila* 258
eye development, *Drosophila* 121

F
familial hypertrophic cardiomyopathy 206
familial medullary thyroid carcinoma 138
fascioscapulohumeral dystrophy 296
fibroblast growth factor receptor
limb development role 253, 344(M)
Xenopus 89(M), 439
fingerprinting, RNA 502(TT), 504(TT)
floating head gene, zebrafish 133(M)
flowering, *A. thaliana* 13(M)
fluorescent *in situ* hybridization 375(BR), 379, 505(TT), 534(MR)
frizzled gene, *Drosophila* 383, 508(M)
Fugu rubripes, comparative genomics 145
fungi 488(BR) *see also*
ascomycetes *and A. immersus*
mating systems 69

G
G proteins
coevolution 366
D. discoideum 52
pigmentation 299
G-tetrad oligonucleotides 290(L)
β-galactosidase *see also* LacZ
assay for two-hybrid system 449(TT)
plate assay, yeast 340(TT)
quantification 498(TT)
reporter gene expression analysis 445(TT)
Gcn5p, human homolog 399(M)
gel filtration, spin-column 339(TT)
gene cloning 199(BR)
gene density 519
gene duplication
evolutionary role 169(M), 364
muscular dystrophy 296
gene expression
alteration by viral oncogenes 271
B. subtilis 31
database, *C. elegans* 370(G)
dosage effects, maize 293(M)
eukaryotic 161, 351
β-globin 204
regulation 229, 351
X-linked 134
gene families, evolution 169(M), 364
gene flow, *S. invicta* 509(M)
gene function
inhibition by ribozymes 510
yeast 241, 242, 244
gene silencing, *Drosophila* 210(M)
gene therapy 251(M), 400(M)
cystic fibrosis 81
extrachromosomal replicating vectors 463
retinitis pigmentosa 398(M)
SCID 12(M)
targeting 400
using ribozymes 510
general transcription factors *see* basal transcription factors
genetic competence, bacteria 150
genetic counselling 428(MR)
genetic instability 444(L), 450(TT)
genetic manipulation 224
genetically modified organisms, safety 199(BR)
genome analysis 372(MR)
comparative, plant 37(MR)
Fugu rubripes 145
maize 90(M)
mammals 519
mouse 433
Genome Data Base 235(G)
genome maps 115(MR)
F. rubripes 145
genome sequencing 76(G)
Archaea 377
databases 316, 425(G)
F. rubripes 145
S. cerevisiae 241, 242, 244, 276(G), 263, 321(G)
germ cell development, *Drosophila* 102
germination, maize 90(M)
β-globin
locus control region 125, 204
quantitative coamplification 447(TT)
glutamate receptor editing 418
glutathione S-transferase fusion proteins, separation 209(TT)
glycogen synthase kinase 3, *Xenopus* 398(M)
granule cell depletion, *weaver* mouse 46(M)

gynogenones, X chromosome imprinting 134

H
haemochromatosis 398(M)
Haemophilus influenzae
genome organization 289(L)
natural genetic competence 150
non-orthologous gene displacement 334(L)
Haldane's rule 412
heat shock protein, yeast 470
hedgehog gene
Drosophila 1, 121, 361, 427(MR), 461(M)
evolution 496(L)
herbivore–plant coevolution 212
heterochromatin
Drosophila 48, 210(M)
Ty1-*copia* retrotransposons, plants 42
Hirschsprung disease 138
histidine kinase 97
HLA-H gene 398(M)
Holliday junction 23
holoenzyme
RNA polymerase 162, 352
S. cerevisiae 313
HOM/Hox genes 254, 258, 328
evolution 368
Hydra 95
limb development 292(M)
positional information 362
segmental patterning 330
homeotic genes
Antennapedia, Drosophila 258, 368
Ultrabithorax, Drosophila 133(M), 258
homing endonucleases 224
homologous recombination
E. coli 20
human genes 170(M)
hormones, plant 281
Hox genes *see HOM/Hox* genes
Hst1 gene, mouse 412
Human Cytogenetics Database 279(BR)
human genetics 374(BR), 488(BR), 536(BR)
ATM gene 211(M)
BCL2 gene 489
behaviour disorders 116(MR), 240(BR)
breast cancer 198(MR), 211(M)
cancer 127, 129, 138, 198(MR)
cDNA mapping 344(M)
counselling 428(MR)
deafness 160(BR)
disease resistance 201
ELL gene 210(M)
Gcn5p homolog 399(M)
genetic diseases 123, 187, 206, 248, 250(TT), 283, 294, 332, 536(BR)
genome organization 519
β-globin 204
haemochromatosis 398(M)
inherited disorders 75(MR)
Internet resources 531(G)
MHC 344(M), 367, 398(M)
mouse models of disease 170(M)
muscular dystrophy 119(BR), 294
myogenesis 218
obesity 441
ovarian cancer 211(M)
pedigree analysis 200(SR)
pigmentation 299
radiation hybrid mapping 491
radiation induced diseases 138, 187
sex determination 164, 461(M)
stress-inducible responses 372(MR)
transforming growth factor β 495
Usher syndrome 208
viral oncogenes 270
Werner syndrome 283
Human Genome Data Base 235(G)
Human Genome Project 145
human immunodeficiency virus (HIV) 400
gene therapy 512
quantitative coamplification 447(TT)
type 1 promoter 352
human papillomavirus type 16 270
human T-cell leukaemia virus-1 270
hunchback gene, *Drosophila* 478
Huntington disease, mouse model 170(M)
hybrid sterility
Drosophila 252(M), 412
mouse 412
Hydra, pattern formation 91
hyperpigmentation, mammals 299
hypersensitive response, plants 63

I
imaginal discs, mitotic spindle detection 452(TT)
immune system, evolution 366
immunization, expression library 132(M)
immunodefiency, mouse 461(M)
immunoglobin
evolution 367
mouse 461(M)
in situ hybridization 375(BR)
human cDNA mapping 344(M)
non-radioactive 392(TT)
oligonucleotide DNA probes 506(TT)
whole mount embryos 385(TT)
Xenopus embryos 459(TT)
zebrafish embryos 387(TT)
in vitro fertilization
mouse oocytes 44(TT)
in vitro mutagenesis 429(BR)
inducible genomic responses 372(MR)
INFOBIOGEN 371(G)
inherited diseases 78(BR), 187
Duchenne muscular dystrophy 119(BR), 294
European populations 75(MR)
myosin disorders 206
insects *see also Drosophila and S. invicta*
evolutionary conservation 329
metamorphosis 373(BR)
isochore 519
insulin 365
insulin-like growth factor 1 365
integration, Ty1 436
integrin, suprabasal 170(M)
inteins, cyanobacteria 287(L)
interleukin genes 365
Internet resources
BioCatalog 371(G)
C. elegans 370(G)
E. coli 156(G)
Fungal Genome Resource 322(G)
gene identification 316
human genetics 531(G)
Human Genome Database 235(G)
INFOBIOGEN 371(G)
mutations 328
polymerase chain reaction 370(G)
promoter recognition 159(MR)
PROMOTER SCAN II 424
searching 196(G)
S. cerevisiae 276(G)
TBASE 117(G), 236(G), 323(G) 485(G)
WebEntrez 322(G)
Yellow BAGI 371(G)

invected gene, *Drosophila* 1
IQ tests 118(BR)

J
JAVA 484(G)

K
kinases
  histidine 97
  MAP kinase pathway 14(M), 343(M), 462(M)
  receptor tyrosine 141, 343(M)
Kit receptor tyrosine kinase 343(M)
knockout, mouse 117(G), 236(G), 323(G), 332, 444(L), 485(G)
Ku86, mouse 461(M)

L
LacZ *see also* β-galactosidase assay 449(TT)
LAG1 gene, *S. cerevisiae* 356
ligation quality control, DNA 341(TT), 501(TT)
light regulation, plants 74(MR), 281
limb development
  Hox gene role 292(M)
  vertebrate 253, 344(M)
limb-girdle muscular dystrophy 295
linear bacterial chromosome 192
liposome targeting, gene therapy 402
locus control region, human β globin 125, 204
long-range PCR 11(TT), 131(TT), 458(TT)
Lou Gehrig disease 133(M)

M
MAGPIE, genome interpretation 76(G)
maize
  evolution 462(M)
  gene expression 293(M)
  genome analysis 90(M)
  seed development 90(M)
major histocompatibility (MHC) complex 344(M), 367, 398(M)
mammals *see also* mouse *and* human genetics
  cell death 489
  genome organization 519
  mRNA editing 418
  PBX genes 258
  pigmentation 299
  RNA splicing 476
  sex determination 164
MAP kinase pathway 14(M), 343(M), 462(M)
mapping
  comparative 344(M)
  human cDNA 344(M), 519
  transcriptional 519
  using fluorescent *in situ* hybridization 379
  whole genome radiation hybrid 491
mating pheromone, yeast 47(M)
mating systems, ascomycetes 69
mating type switching, *S. cerevisiae* 252(M)
melanin 300
melanocortin 299
mesoderm induction 14(M), 439
messenger RNA *see* mRNA
metamorphosis 373(BR)
  Drosophila 306
microcell, chicken–human hybrids 170(M)
microsatellites, genetic instability 450(TT)
midbrain–hindbrain development 15
minicolumns, DNA recovery 339(TT)
mitochondrial DNA *see* mtDNA
mitosis
  control, *S. pombe* 345
  spindle detection 452(TT)
molecular biology 199(BR), 325(BR), 430(BR), 488(BR)
molecular evolution 533(MR), 534(BR)
molecular genetics 535(BR)
Molony murine leukaemia virus 400
morphallaxis 363
morphogenetic furrow, *Drosophila* eye 121
morphogens, *Hydra* 91
motor neurone disease 433
mouse
  artificial insemination 44(TT)
  cell signalling 343(M)
  disease resistance 201
  embryos, *lacZ* gene analysis 445(TT)
  β-galactosidase quantification 498(TT)
  hybrid sterility 412
  immunodeficiency 461(M)
  knockouts 117(G), 236(G), 323(G), 444(L), 485(G)
  limb development 253, 292(M)
  midbrain–hindbrain development 15
  model, human diseases 170(M), 509(M)
  motor neurone disease 433
  mutagenesis 433
  myelin degeneration 47(M)
  neurodegenerative disorders 207
  obesity 440
  p53 444(L)
  pigmentation 299
  potassium channel mutation 46(M)
  quaking gene 169(M)
  retinitis pigmentosa 398(M)
  Wilson disease model 509(M)
  Xist gene 89(M)
mRNA
  differential display 502(TT)
  editing 6, 418
  stability, higher eukaryotes 171
mtDNA
  deletion mapping 131(TT)
  evolution 248
multiple endocrine neoplasia type 2 138
muscular dystrophy 119(BR), 294
mutagenesis 79(BR), 429(BR)
  conditional mutations, mammals 181
  mouse 433
mutant fixation 246
Mutation Database 328
mutation
  conditional 181
  rate, *E. coli* 343(M)
Mycoplasma
  genome organization 289(L)
  infection, protection against 132(M)
  non-orthologous gene displacement 334(L)
myelin degeneration, mouse 47(M)
myelination, mouse *quaking* gene 169(M)
myf5 gene, myogenesis 218
MyoD gene family 218
myogenesis 218
  muscular dystrophy 294
  myelin degeneration 47(M)
  myf5 gene 218
  myosin 206
  quaking gene, mouse 169(M)
myosin 206
myotonic dystrophy 296, 332

N
nanos gene, *Drosophila* 478
natural genetic competence, bacteria 150
natural selection, plants and enemies 212
Neisseria gonorrhoeae, natural genetic competence 151

nerve growth factor 365
neurodegenerative diseases 207, 279(BR), 294
  mouse model 170(M)
neurogenesis 38(MR)
  Delta gene 399(M), 427(MR)
  Drosophila 292(M), 427(MR), 461(M)
  mouse 46(M), 47(M)
  myelin formation 47(M)
  Notch gene 399(M), 427(MR)
  notochord development, zebrafish 133(M)
  numb gene 399(M)
  positional information 361
  Schwann cell formation 84
  vertebrate organizer 526
non-coding frames, evolutionary control 168(L)
non-orthologous genes 334(L)
non-radioactive *in situ* hybridization 392(TT)
Norrie disease, mouse model 170(M)
Notch gene 399(M)
notochord development, zebrafish 133(M)
Nramp1 gene 201
nuclear receptors 277(MR), 306
nuclei, extraction 505(TT)
nucleoside diphosphate kinase 334(L)
nucleosome 60, 436
nucleotide excision repair 187
NUMB protein 46(M), 399(M)

O

obesity 441
odr-10 gene, *C. elegans* 252(M)
olfactory system, *Drosophila* 175
oligonucleotides
  antisense 290(L)
  DNA probe purification 506(TT)
  use as primers 502(TT), 504(TT)
ommatidia, *Drosophila* 121
oncogenes 39(BR), 324(MR)
  viral 4, 270
oogenesis, *Drosophila* 103
open reading frames, overlapping 12(L)
organizer genes, vertebrate 525
origin-recognition complex 407
orthologous genes 334(L), 344(M), 496(L)
oskar gene, *Drosophila* 102
ovarian cancer 211(M)
oviduct transfer, mouse spermatozoa 44(TT)

P

p53 14(M), 444(L)
pair-rule genes 329, 480
papillary thyroid carcinoma 138
paralogous genes 334(L), 344(M)
pathogen–plant coevolution 212
patterning
  Drosophila 1, 366, 478
  evolutionary conservation 329
  fibroblast growth factor role 344(M)
  Hydra 91
  midbrain–hindbrain 15
  positional information 359
  vertebrate 253, 329, 344(M), 525
Pax genes 15, 84, 218
PBX gene, mammals 258, 328
pedigree analysis, human 200(SR)
phage display peptide libraries 251(M)
pheomelanin 300
pheromones
  ascomycetes 73
  S. cerevisiae 291(M)
phosphorelay, *B. subtilis* 98
photomorphogenesis 281
photosensitivity 187
phylogeny 533(MR)
piebaldism 299
pigmentation, mammals 299
plant genetics *see also A. thaliana and* maize
  development 508(M)
  disease resistance 63, 212, 251(M)
  genome analysis 37(MR)
  signalling 74(MR)
  steroid hormones 281
  Ty1-*copia* retrotransposon group 41
plasmid dimerization 246
ploidy, maize 293(M)
point mutation detection, PCR method 391(TT)
polarization, *Drosophila* oocyte 102
pollux gene, *Drosophila* 292(M)
Polycomb gene, *Drosophila* 133(M)
polymerase chain reaction (PCR) 239(BR), 375(BR), 534(BR)
  -mediated bidirectional deletions 453(TT)
  cloning using MI3 vector 286(TT)
  competitive, DNA ligation quality 341(TT)
  differential display 455(TT), 502(TT)
  DNA extraction 338(TT)
  Drosophila adults 457(TT)
  generating RNA fingerprints 396(TT)
  improving specificity 460(TT)
  Internet resource 370(G)
  long-range 11(TT), 131(TT), 458(TT)
  microsatellite analysis 450(TT)
  mutation detection 391(TT)
  products, direct sequencing 167(TT)
  quantitative 447(TT)
  RACE-PCR 87(TT), 389(TT)
  yeast two-hybrid assay 393(TT)
polytene chromosome puffing 306
population genetics 280(BR)
  bacteria 38(BR)
position effect variegation 123, 210(M)
positional information 359
potassium channel 202
  mutation, *weaver* mouse 46(M)
prions, yeast 14(M), 467
promoter recognition 159(MR)
PROSPERO transcription factor, *Drosophila* 46(M)
prostate cancer 198(MR)
protein kinases *see also* kinases
  KSR 89(M)
  Shp1, mouse 343(M)
protein–protein interaction 449(TT)
protein purification 209(TT)
protein truncation test, non-radioactive 250(TT)
proto-oncogene, *RET* 138
psoriasis, mouse model 170(M)
pufferfish *see Fugu rubripes*

Q

quaking gene, mouse 169(M)
quality control, DNA ligation 341(TT), 501(TT)
quantitative coamplification 447(TT)
quantitative genetics 280(BR)
quantitative trait loci
  maize 462(M)
  obesity 441
quantum theory, gene exploration 517

R

RACE-PCR 87(TT), 389(TT)
rad53 gene, yeast 211(M)
radiation
  genetics 515
  induced diseases 138, 187
  resistance, *C. elegans* 343(M)

radiation hybrid mapping 344(M), 491
rare-cutting endonucleases 224
RAS signal transduction 89(M)
rat, obesity 441
receptor tyrosine kinase
Kit 343(M)
signalling 141
recombinant DNA 199(BR)
recombination, *E. coli* 20
regeneration 278(MR), 363
repeat expansion/reduction, muscular dystrophy 296, 332
RET proto-oncogene 138
retinitis pigmentosa 293(M), 398(M)
retrotransposons
Ty1-*copia* group, plants 41
retroviruses 436
gene therapy vectors 400
reverse transcriptase, *Drosophila* 48
reverse transcription – PCR (RT–PCR) 87(TT), 502(TT)
cloning of products 504(TT)
ribonuclease, messenger, mammals 172
ribozymes, gene therapy 510
RNA
-binding proteins, mammals 172
editing 6, 418
extraction from yeast 337(TT)
fingerprinting 396(TT), 502(TT), 504(TT)
localization 102
protocols 375(BR)
splicing 472
RNA polymerase I and II 161, 210(M), 229, 257(MR), 311
Internet resource 424(G)
transcriptional role 351, 508(M)

S

S phase 345, 407
Sandhoff disease, mouse model 170(M)
Saccharomyces cerevisiae
aging 355
AKR1 gene 290(M)
cell cycle 90(M), 211(M), 251(M), 348, 405
β-galactosidase plate assay 340(TT)
genome sequencing 241, 242, 244, 263, 276(G), 321(G), 436
holoenzyme 352
homing endonucleases 224
MAP kinase cascade 462(M)
mating-type genes 71, 252(M)
pheromone response pathway 291(M)
prions 14(M), 467
RNA extraction 337(TT)
transcriptional activation 311
Ty elements 436
Schizosaccharomyces pombe
cell cycle 345, 405
mating-type genes 71
RNA extraction 337(TT)
Schwann cells 84
sclerosis 218
seed maturation, maize 90(M)
segment polarity gene 331, 382, 427(MR)
segmentation 329, 480 *see also* patterning
sequencing 167(TT), 375(BR)
databases 316, 425(G)
DNA chips 110
genome 76(G), 110, 159(MR), 241, 242, 244, 263, 276(G), 321(G)
serine-threonine kinase receptor 494
sex determination
Drosophila 461(M), 473
mammals 164
sexual differentiation, ascomycetes 69
shaker-1 gene 208
Shp1, mouse 343(M)
signal transduction
alteration by viral oncogenes 271
AKR1 gene, *S. cerevisiae* 291(M)
Bem1p 462(M)
C. elegans 89(M)
chemoattractant receptors, *D. discoideum* 52
competence development, bacteria 152
Drosophila 106, 175, 306, 427(MR)
fibroblast growth factor 440
follicle cells, *Drosophila* 106
G-protein coupled 299
Hydra 94
Kit receptor tyrosine kinase 343(M)
mammals 181
metamorphosis, *Drosophila* 306
NOTCH-DELTA 399(M)
olfaction, *Drosophila* 175
plants 74(MR)
RAS-mediated 89(M)
sexual development, ascomycetes 69
transforming growth factors 493
two-component 97
Wnt 382, 398(M), 508(M)
yeast mating pathway 47(M)
silencing, transcriptional 357
single base mismatch analysis 392(TT)
SIR genes, *S. cerevisiae* 356
Solenopsis invicta, gene flow 509(M)
somites 218
speciation 509(M)
spermatogenesis, arrest 413
spin-column gel filtration 339(TT)
spinal muscular atrophy 297
splice site recognition 472
splicing, RNA 472
sporulation, *B. subtilis* 31, 98
SRY gene, mammals 164
stem cells, cancer 127, 129
sterility
Drosophila hybrid 252(M)
mouse hybrid 412
steroid hormones
Drosophila metamorphosis 306
plants 281
Streptococcus pneumoniae, natural genetic competence 151
Streptomyces, linear chromosomes 192
stress-inducible responses 372(MR)
Sup35p protein, *S. cerevisiae* 467
superoxide dismutase 133(M)
sympatric speciation 509(M)
synpolydactyly 292(M)
synteny, conserved 147
system acquired resistance, plants 63

T

T-cell receptors
evolution 367
mouse 461(M)
T-DNA deficiency, *A. thaliana* 132(M)
T-vector, use in cloning DNA fragments 44(TT)
tandem repeat reduction, muscular dystrophy 296
targeted gene therapy 400
TATA elements 311, 351
Tay–Sachs disease, mouse model 170(M)
TBASE 117(G), 236(G), 323(G), 485(G)
telomerase 486(MR)
activity, cancer 127, 129
detection 395(TT)
telomeres
cancer 127, 129
Drosophila 48

repeat amplification protocol 395(TT)
Tetrahymena, DNA rearrangements 26
TFIID 311, 352
TFIIH 188, 352
toxic milk, mouse 509(M)
transcription 123, 157(MR), 161, 190, 210(M), 351
activation 311
Archaea 378
regulation, DNA length 508(M)
repressors 229
silencing, aging role 357
targeting, gene therapy 402
transcription factor
basal 188, 230, 311, 351, 481
basic helix-loop-helix family 218, 330
cell death role 489
ecdysone-induced 306
HOX family 258
nuclear receptors 277(MR)
structural comparison with histones 59
transcriptional complex 351
transcriptional mapping 519
transforming growth factor β superfamily 493
transformation, bacteria 150
transformer-2 gene, *Drosophila* 461(M)
transgenic animals
Internet resource 117(G)
Xenopus 439
zebrafish 9(TT)
translation
Archaea 377
fidelity 13(M)
translocation 210(M)
transposable elements
telomere-specific, *Drosophila* 49
transposition, linear bacterial chromosomes 194
trichothiodystrophy 187
trinucleotide repeat expansion, muscular dystrophy 296
triplet repeat expansion, mytonic dystrophy 332
tropomyosin 4, long range PCR 458(TT)
tumour suppression
BRCA1 gene 211(M)
p53 444(L)
tumours and tumorigenesis *see* cancer
two-hybrid system, LacZ assay 449(TT)
Ty elements, yeast 436
Ty1-*copia* retrotransposon group, plants 41

U
Ultrabithorax gene, *Drosophila* 133(M), 258
ultraviolet radiation
p53 activation 14(M)
sensitivity 187
Urbilateria 329
Ure2p protein, *S. cerevisiae* 14(M), 467
Usher syndrome 208
UTH2 gene, *S. cerevisiae* 356

V
V(D)J recombination, mouse 461(M)
vertebrates
cavitation 47(M)
cell death 489
development 237(MR)
evolutionary conservation 329
limb development 253, 344(M)
organizer genes 525
regeneration 278(MR)
segmentation 329
tissues, DNA extraction 338(TT)
veterinary genetics 327(BR)
viral oncogenes 4, 270
Viviparous-1, maize 90(M)

W
warts gene, *Drosophila* 332
weaver mutation, mouse 46(M)
Werner syndrome 283
whole genome radiation hybrid mapping 491
Wilson disease 509(M)
wingless gene, *Drosophila* 331, 382, 398(M), 427(MR)
Wizard minicolumns, DNA recovery 339(TT)
WNT gene family 15, 219, 253, 382, 398(M), 427(MR), 508(M)
WWW (WorldWideWeb)
BioCatalog 371(G)
C. elegans 370(G)
client-side applications 484(G)
E. coli 156(G)
Fungal Genome Database 322(G)
Human Genome Data Base 235(G)
human genetics 531(G)
INFOBIOGEN 371(G)
MAGPIE 76(G)
mutations 328
promoter recognition 159(MR)
searching 196(G)
S. cerevisiae 276(G)
TBASE 117(G), 236(G), 323(G), 485(G)
WebEntrez 322(G)
Yellow BAGI 371(G)

X
X-chromosome inactivation 89(M), 412
X-linked retinitis pigmentosa 293(M)
X-ray, gene exploration 515
Xenopus laevis
cell cycle control 347
development 89(M)
embryonic axis formation 398(M)
fibroblast growth factor 89(M), 439
in situ hybridization 459(TT)
mesoderm induction 14(M)
myogenesis 221
organizer 525
positional information 362
transgenesis 439
xeroderma pigmentosa 187, 398(M)
Xist gene 89(M), 134, 415

Y
yeast *see also S. cerevisiae and S. pombe*
cell cycle 90(M), 211(M), 251(M)
β-galactosidase plate assay 340(TT)
gene function 244
genome sequencing 241, 242, 244, 263
mating pathway 47(M)
prions 14(M), 467
protocols 238(BR), 326(BR)
RNA extraction 337(TT)
two-hybrid assay 393(TT), 449(TT)
Ty elements 433
yeast artificial chromosomes 238(BR)
double strand breaks 462(M)
Yellow BAGI 371(G)

Z
zebrafish
double fluorescent *in situ* hybridization 387(TT)
floating head gene 133(M)
notochord development 133(M)
organizer genes 526
transgenic 9(TT)

Index of Books Reviewed

A

Ableson, J.N. and Simon, M.I., eds, Methods in Enzymology on CD-ROM, CD-1: Recombinant DNA and Related Methodology 80

Adolph, K.W., ed., Human Molecular Genetics: Methods in Molecular Genetics (Vol. 8) 488

Alberts, B.A., Bray, D., Lewis, J., Raff, M., Roberts, K. and Watson, J. (Illustrated by Orme, N.), The Art of MBoC (3rd edn) (CD) 430

Ausubel, F.A. *et al.*, Short Protocols in Molecular Biology (3rd edn) 325

B

Baumberg, S., Young, J.P.W., Wellington, E.M.H. and Saunders, J.R., eds, Population Genetics of Bacteria 39

Bock, G.R. and Goode, J.A., eds, Genetics of Criminal and Antisocial Behaviour. Ciba Foundation Symposium 194 240

Bos, C.J., ed., Review of Fungal Genetics: Principles and Practices. Mycology (Vol. 13) 488

C

Cervós-Navarro, J. and Urich, H., Metabolic and Degenerative Diseases of the Central Nervous System 279

D

Dieffenbach, C.W. and Dreksler, G.S., eds, PCR Primer: A Laboratory Manual 239

E

Emery, A.E.H. and Emery, M.L.H., eds, The History of a Genetic Disease: Duchenne Muscular Dystrophy or Meryon's Disease 119

Evans, I.H., ed., Yeast Protocols: Methods in Cell and Molecular Biology (Methods in Molecular Biology Vol. 53) 326

F

Falconer, D.S. and Mackay, T.F.C., Introduction to Quantitative Genetics (4th edn) 280

Friedberg, E.C., Walker, G.C. and Siede, W., eds, DNA Repair and Mutagenesis 79

G

Gilbert, L.I., Tata, J.R. and Atkinson, B.G., eds, Metamorphosis: Postembryonic Reprogramming of Gene Expression in Amphibian and Insect Cells 373

Gorlin, R.J., Toriello, H.V. and Cohen, M.M., Jr, eds, Hereditary Hearing Loss and Its Syndromes 160

H

Harwood, A.J., ed., Basic DNA and RNA Protocols: Methods in Molecular Biology (Vol. 58) 375

Hesketh, R., ed., The Oncogene Handbook, The Oncogene Facts Book 39

Hillis, D.M., Moritz, C. and Mable, B.K., eds, Molecular Systematics (2nd edn) 534

Howe, C., Gene Cloning and Manipulation 199

M

Mackintosh, N.J., ed., Cyril Burt: Fraud or Framed? 118

Markie, D., ed., YAC Protocols. Methods in Molecular Biology (Vol. 54) 238

Marteau, T. and Richards, M., eds, The Troubled Helix: Social and Psychological Implications of the New Human Genetics 536

McPherson, M.J., Hames, B.D. and Taylor, G.R., PCR 2: A Practical Approach 239

Miller, J.H., Discovering Molecular Genetics: A Case Study Course with Problems and Scenarios 535

N

Nicholas, F.W., Introduction to Veterinary Genetics 327

R

Rudolf A. Raff, The Shape of Life: Genes, Development, and the Evolution of Animal Form 430

S

Schinzel, A., Human Cytogenetics Database 3.5 279

Scriver, C.R., Beaudet, A.L., Sly, W.S. and Valle, D., eds, The Metabolic and Molecular Bases of Inherited Diseases: Vols. I, II and III (7th edn) 78

Smith, J.E., Biotechnology (3rd edn) 326

Strachan, T. and Read, A.P., Human Molecular Genetics 374

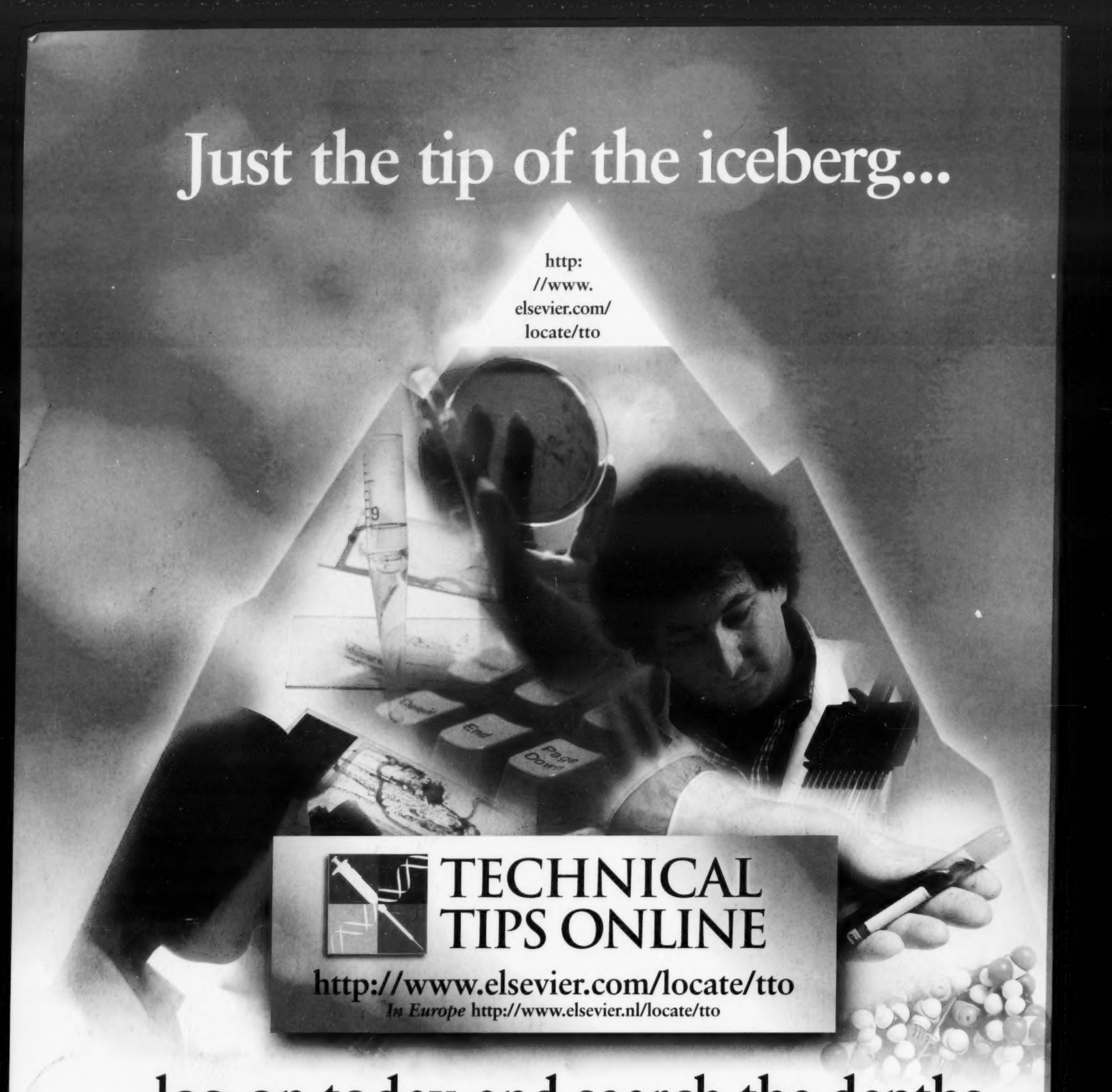
T

Trower, M.K., ed., *In Vitro* Mutagenesis Protocols (Methods on Molecular Biology) 429

Tzotzos, G.T., ed., Genetically Modified Organisms: A Guide to Biosafety 199

Just the tip of the iceberg...

http:
//www.
elsevier.com/
locate/tto



TECHNICAL TIPS ONLINE

http://www.elsevier.com/locate/tto

In Europe **http://www.elsevier.nl/locate/tto**

...log-on today and search the depths.

NEW from Elsevier Trends Journals

Technical Tips Online **- a database of techniques information for the life scientist.**

http://www.elsevier.com/locate/tto

In Europe **http://www.elsevier.nl/locate/tto**

TECHNICAL TIPS ONLINE

E L S E V I E R T R E N D S J O U R N A L S

AMERICAS: Elsevier Science, Regional Sales Office, Customer Support Department, 655 Avenue of the Americas, New York, NY 10010, USA Tel: +1 (212) 633 3730 Fax: +1 (212) 633 3680 E-mail: usinfo-f@elsevier.com EUROPE/ROW: Elsevier Science, Regional Sales Office, Customer Support Department, PO Box 211, 1000 AE Amsterdam, The Netherlands Tel: +31 (20) 485 3757 Fax: +31 (20) 485 3432 E-mail: nlinfo-f@elsevier.nl SINGAPORE (ASIA PACIFIC EXCEPT JAPAN): Elsevier Science, Regional Sales Office, Customer Support Department, No. 1 Temasek Avenue, #17-01 Millenia Tower, Singapore 039192 Tel: +65 336 9338 Fax: +65 337 2230 E-mail: asiainfo@elsevier.com.sg JAPAN: Elsevier Science, Regional Sales Office, Customer Support Department, 9–15 Higashi-Azabu, 1-chome, Minato-ku, Tokyo 106, Japan. Tel: +81 (3) 5561 5033 Fax: +81 (3) 5561 5047 E-mail: kyf04035@niftyserve.or.jp

ELSEVIER TRENDS JOURNALS